

176080

Frank Muldowney
Work Zone Safety Coordinator
15285 So. Golden Road, Bldg 45
Golden, CO 80401
(303) 273-1853
Frank.Muldowney@dot.state.co.us

DEPT. OF TRANSPORTATION
COMPLIANCE

02 JUN -6 PM 2:38

FHWA-2001-11130-18

COMMENTS TO THE ANPRM ON WORK ZONES DOCKET NUMBER 11130

General

1. Should there be a National policy to promote improved mobility and safety in highway construction and maintenance? If so, should the National policy be incorporated into the regulation or issued separately as guidance that outlines guidelines and best practices for implementation?

COMMENTS: Yes! There should be a National policy to promote improved mobility and safety in highway construction and maintenance, and this policy should be incorporated into the regulation. Guidelines and best practices are often ignored in the interest of profit and cost analysis.

2. Are the current provisions of 23 CFR 630, Subpart J adequate to meet the mobility and safety challenges of road construction and maintenance projects encountered at all stages of project evolution? If they are not adequate, what are the provisions and/or sections that need to be enhanced and/or modified to ensure mobility and safety in and around work zones?

No Comments offered.

3. Should work zone regulations be stratified to reflect varying levels and durations of risk to road users and workers, and disruptions to traffic?

What would be the most appropriate stratification factors (e.g., duration, length, lanes affected, Average Daily Traffic (ADT), road classification, expected capacity reduction, potential impacts on local network and businesses)?

COMMENTS: No!

4. Currently, there are several definitions for work zone, as defined by the MUTCD, ANSI D16 (proposed), NCUTLO and NHTSA. These definitions, even though similar in basic structure and implication, differ in length and the degree of detail addressed. Should there be a common National definition for work zone to bring about uniformity? If so, what should the common National definition be?

COMMENTS: The National definition for work zone should be the ANSI definition with the INCLUSIONS and without the EXCLUSIONS because the excluded areas also affect the traffic of all types of mobility and therefore should be included and uniform with the rest of the elements that affect the traffic by creating "Work Zones". (i.e. Signs and cones placed for cross traffic closed roadways and/or lanes and closed sidewalks, as well as construction traffic turning into (and from) driveways and/or at normally low volume crossroads does effect the safety of the traffic traveling on the main roadway.

Transportation Planning and Programming

It is important to consider user mobility and safety impacts and worker safety requirements across the different stages of highway project development. Consideration of these impacts should begin early and be consistently coordinated across the planning

processes and project development stages. The FHWA expects that such consideration will reduce the need for recurrent work zones, the duration of work zones, and the disruption caused by work zones.

5. How, if at all, are impacts to road users due to road construction and maintenance part of the management and operations considerations that are addressed in transportation plan development?

COMMENTS: Irregular traffic movements (including lane shifts and realignments) caused by long duration work zones do decrease the pavement life expectancy of the pavement adjacent to the work zones. Long-term work zones should include a corridor plan for rehabilitation of the work zone adjacent pavement.

6. To what extent should the metropolitan and statewide transportation planning processes address cross-cutting policy issues that may contribute to increases in project costs (for example, the use of more durable materials, life-cycle costing, complete closure of facilities, information sharing on utilities, etc.)? Is it appropriate to consider the impact of construction and maintenance projects to road users in planning for future roadway improvements at the metropolitan level? At the statewide level? At the corridor level?

COMMENTS: I have always believed that as population centers increase in size and intensity, the local entity should adopt a policy of establishing utility corridor cross structures in an effort to decrease the need for continually cross-cutting the roadways to facilitate the utility companies' expansion. The utility

companies WILL SHARE AND COORDINATE in an effort to minimize their initial investment in these roadway cross-cutting utility corridor structures.

Better coordination and use of the currently available information concerning the type of work, location, time, and duration of future projects by all entities (local state and federal) would improve the public perception of organization in the planning and construction processes.

7. **What data and methods are currently available to address the above considerations? What else would be needed to support such considerations in the metropolitan and statewide transportation planning processes? At the corridor level?**

COMMENTS: Utility company cross-cutting structures could be included in the STIP as structures with the ownership belonging to the roadway owner and the expense burden for construction and maintenance settling on the utility companies using the structures. Cost recovery being offered to the original builder by a system of initial cost and life expediency cost benefit at the time of buy-in.

Project Design for Construction and Maintenance

In making decisions on alternative project designs, project designers should consider different strategies and practices that may lead to reductions in the need for recurrent road construction and maintenance work, the duration of work zones and the disruption caused by work zones. Examples of such considerations include life-cycle cost analysis, alternative project scheduling and design strategies, such as, full road closures and night time work, using more durable materials, coordinating road

construction, estimation of user costs/impacts, risk and reward sharing with contractors, and constructibility reviews for projects.

8. How can the FHWA encourage agencies to incorporate the above considerations (life-cycle cost analysis, alternative project scheduling and design strategies, etc.) in the decisionmaking process for evaluating alternative project designs? What are the most appropriate ways to include these considerations in project design?

COMMENTS: Use rules.

9. Can user cost be a useful measure to assess alternative means to design and implement work zones? What weight should agencies assign to user costs as a decisionmaking factor in the alternatives evaluation process? Should analytical tools, such as QuickZone,¹ QUEWZ-98,² etc., be used for the evaluation of various design alternatives and their estimated impact to the public? What other impact measures (delay, speed, travel time, crashes) should agencies estimate and use for alternatives evaluation?

No Comments offered.

10. Given the fact that utility delays have been cited as roadblocks to efficient project delivery, what should be done to address this issue?

¹ QuickZone is a traffic analysis delay estimation tool designed by the FHWA to aid State and local design and construction staff, operations and planning staff, construction contractors and even utility contractors. This Microsoft Excel spreadsheet tool can be used to analyze both urban and inter-urban corridors. QuickZone 1.0 will soon be available. QuickZone Beta version 0.99 is available as a free download at <http://ops.fhwa.dot.gov/wz/workzone.htm>.

² QUEWZ-98 is a microcomputer analysis tool that estimates traffic impacts, emissions and additional road user costs resulting from short-term lane closures in work zones. More information about this tool may be obtained online at: <http://tti.tamu.edu/researcher/v36n2/quewz98.stm>.

COMMENTS: Project schedules should not be drawn-up by ignoring the input of the individuals closely associated with the timetables of ROW and Utility Delays with respect to the necessary and mandated hearing processes and the local court system schedules.

Managing for Mobility and Safety In and Around Work Zones

There are many methods that can be applied to managing traffic in and around work zones. The application of Intelligent Transportation Systems (ITS) for purposes, such as, traffic management, automated enforcement and traveler information is a useful method to improve transportation mobility and safety. The current and future mobility and safety challenges presented by work zones may require Traffic Control Plans (TCPs) to include traffic management, enforcement and operations considerations (such as ITS based traffic control and traveler information, speed management and enforcement, incident and emergency management, etc.), security considerations, and other considerations (for example, utility location and coordination information).

11. The current regulation specifies the requirement for TCPs for work zones, but does not address the issues of sustained traffic management and operations, or traffic enforcement methods and partnerships. Should the scope of TCPs be expanded to include such considerations? What are the most relevant practices or technologies that should be considered in planning for traffic management, enforcement and operations? What are the most appropriate ways to facilitate the inclusion of such considerations in traffic control planning?

COMMENTS: The TCP should include traffic management and operations. If a left turn lane is closed, does this not affect the traffic that normally turns left at that intersection? Does the amount of traffic making a left turn at that intersection become influenced by the amount of time the left turn cycle is allotted by the traffic signal present? Will left turn traffic storing in a normally thru lane influence the volume traffic flowing thru the intersection on a "Green" cycle? Since the answers to the above questions is "YES", then the traffic signal(s) cycles should be adjusted to accommodate the construction work zone present at the intersection(s). A long term left lane closure should be reason to consider a "Detour" to avoid unnecessary frustration, conflict, and accidents at the affected intersection.

12. Should TCPs address the security aspects of construction of critical transportation infrastructure? Should TCPs address the security aspects of work zone activities in the vicinity of critical transportation or other critical infrastructure?

COMMENTS: TCPs can address security issues, but only if those security issues were used as a basis for how and why that TCP was planned that way. Security issues should not be a part of the TCP but security issues can be used as factors that shape and formulate a particular TCP.

13. How should TCPs address ADA requirements?

COMMENTS: TCPs should NEVER ALLOW one type of transportation modal to suffer and be ignored for the cost saving or enhancement of another type of modal. I.e., Temporary work zone traffic signs should never be allowed to be

placed on sidewalks, driveways, or railroad tracks just as a matter of convenience to someone other than the pedestrians, business patrons, trains, and other modal users. In the previous sentence the mobility and safety of the other modal users has been compromised by the automobile traffic corridor in an effort to: a) Save money for the contractor, b) Save money for the project owner, c) to effect easy solution, or to d) Harass the non-automobile modal users.

- 14. Should more flexibility be allowed on who develops TCPs – State DOTs, municipalities, contractors or law enforcement agencies – and how should the responsibility for developing TCPs be assigned? Should certification be required for TCP developers? How can the owners and contractors share the roles, risk and rewards in developing TCPs and implementing and operating work zones?**

COMMENTS: MHTs and TCPs should not be ignored once the project is underway.

In Colorado, CDOT requires that the TCP submitted for any work on State Highways be signed by a Certified Traffic Control Supervisor (TCS). In order to become certified, an individual must have passed a TCS Certification Course offered by either ATSSA or the Colorado Contractors Association (CCA).

- 15. To ensure roadway mobility and safety and work area safety, should mobility and safety audits be required for work zones?**

COMMENTS: Yes.

Public Outreach and Communications

To reduce the anxiety and frustration of the public, it is important to sustain effective communications and outreach with the public regarding road construction and maintenance activity, and the potential impacts of the activities. This also increases the public's awareness of such activities and their impacts on their lives. The lack of information is often cited as a key cause of frustration for the traveling public. Therefore, it is important to identify the key issues that need to be considered from a public outreach and information perspective.

16. How can we better communicate the anticipated work zone impacts and the associated mitigation measures to the public? Who – the State, local government, contractor, or other agency – should be responsible for informing the public?

COMMENTS: VMS boards and personal contact persons talking with the stopped traffic can also be used. All of the above should be responsible for informing the public, but one individual should be designated as the "Media Liaison" and all public information should be coordinated through that individual.

17. Should projects with substantial disruption include a public communication plan in the project development process? If so, what should such a plan contain?

COMMENTS: Yes, that plan should include what ever it takes to notify the public properly about any disruptions.

Analyzing Work Zone Performance

Evaluation is a necessary tool for analyzing failures and identifying successes in work zone operations. Work zone performance monitoring and reporting at a nationwide level has the potential to increase the knowledge base on work zones and help better plan, design and implement road construction and maintenance projects.

18. Should States and local transportation agencies report statistics on the characteristics of work zones (such as number of work zones, size, cost, duration, lanes affected, ADT, road classification, level of disruption and impacts on local network and businesses) to appropriate State or Federal agencies? If so, in what ways do you think this would be beneficial?

No comment offered.

19. Should States and local transportation agencies report statistics on the mobility performance of work zones? Are typical mobility measures, such as, delay, travel time, traffic volumes, speed and queue lengths appropriate to analyze work zone mobility performance? What are the top three measures that are most appropriate?

COMMENTS: No.

20. Are the currently used measures for safety (typically, crashes, fatalities and injuries) appropriate to analyze work zone performance? If not, what other measures should be considered? Are current mechanisms for collecting this information adequate? If not, how can we improve them?

COMMENTS: No. If all the states used the MMUCC reporting questions and procedures, the work zone accidents would be better defined with regard to whether or not the work zone was responsible for the accident.